

WE CLAIM:

1. In a distributed computing system comprising a client coupled to a plurality of servers, a system to allocate one or more computing tasks among the plurality of servers comprising:
 - 5 a client to request a computing task;
 - a first server to allocate the computing task to a second server that executes the allocated computing task, wherein the allocation is performed by matching an attribute of the second server with an attribute of the computing task.
- 10 2. The system of claim 1, wherein the second server comprises a plurality of servers.
3. The system of claim 1, wherein the first server comprises a plurality of servers.
4. The system of claim 1, wherein another server allocates the request to the first
15 server.
5. The system of claim 1, wherein the attribute of the second server is load capacity.
6. The system of claim 1, wherein the attribute of the second server is type of
20 application residing on the server.
7. The system of claim 1, wherein the attribute of the second server is idle computing power.

8. The system of claim 1, wherein the attribute of the second server is computing power.
- 5 9. The system of claim 1, wherein the attribute of the second server is matched to an attribute of the client.
10. The system of claim 1, wherein the attribute of the second server is matched to an attribute of a user.
- 10 11. The system of claim 1, further comprises a database contained in the first server that stores the attributes of the second server.
12. The system of claim 11, wherein the database is dynamically upgraded with a current attribute of the second server.
- 15 13. The system of claim 1, further comprises a database storing user attributes.
14. The system of claim 1, further comprises a database storing computing task attributes.
- 20 15. In a distributed computing system, a method for dynamic allocation of computing tasks comprising the steps of:

receiving a computing task by a first server from a client; and
allocating said computing task to a second server that executes said
computing task, wherein the allocation is based on matching an attribute of the
5 second server to an attribute of said computing task.

16. The method of claim 15, wherein the allocation is based on matching one or more
attributes of the second server to a combination of computing task attributes, user
preferences, and client attributes.

17. The method of claim 15, further comprising the step of dynamically updating a
database that stores the attribute of the second server.

18. A method of managing a set of servers comprising the steps of:

15 creating a record of the attributes of a second set of servers in a database
contained in a first set of servers; and
updating said record in the database, wherein the second set of servers
communicates its attributes to the first set of servers.

19. The method of claim 18, wherein the transfer of attributes is scheduled when an
attribute changes.

20. The method of claim 18, wherein the transfer of attributes is scheduled by a
25 triggering event.

21. The method of claim 18, wherein the transfer of attributes is scheduled periodically.

5 22. The method of claim 18, further comprising the step of registering a server from the second set of servers with a server from the first set of server, wherein the transfer of attributes is from the registered second server to the corresponding first server.

10 23. The method of claim 18, wherein the transfer of attributes is broadcasted to all the servers of the first set.

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